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(54) Title: CONNECTING ROD WITH PROFILED BORE FOR INCREASED LOAD CAPABILITY

(57) Abstract

An engine cylinder piston connecting rod subassembly, for use in an engine, includes a piston (53), a piston pin (52) and a connecting rod (51). The connecting rod has a piston end portion with a piston pin bore (62). The piston pin is inserted through the piston pin bore and oppositely disposed portions of the piston, for securing the piston and the connecting rod together. Opposite ends of the piston pin bore are machined or profiled with relief portions (60, 61), to allow for piston pin deflection and thereby maximize the load carrying capacity, by providing a greater area of contact. The relief portions can be a curved surface (65) machined as part of the bore, or a plurality of end-to-end angled frustoconical surfaces (66a, 66b, 66c). The relief portions are shaped to correspond to the shape of the corresponding piston pin when under load during normal engine operation.

